Unpacking personal adaptability at work

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Adaptability is a key competency for career success. In this article, the authors examine how individual adaptability is associated with the accrual of human capital, the organization of the work environment, and the characteristics of individuals. They find that a number of factors are particularly strongly related to personal adaptability: gender, employability, education, and management support. By understanding the variety of factors that are intrinsic to individuals, those that can be developed within individuals, and work environment design, it seems possible to foster the development of personal adaptability in the workplace.

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If we doubt that individuals struggle to adapt and accept change, we need only look at the amazing success of the "Who Moved My Cheese?" training and development materials (Johnson, 1998). The materials are popular for good reason. For many workers, the cheese has moved multiple times as organizations have been turned upside down. In place of neat hierarchical organizational charts, we find a mix of overlapping circles, process flows, and roles performed by associates, team members, coaches, and some who are not even company employees (Pearlman & Barney, 2000). New workplace technologies require change (Pulakos, Arad, Donovan, & Plamondon, 2000), and globalization demands understanding of new sets of cultural rules (Sanchez & Levine, 2001). Downsizing, rightsizing, and outsourcing all contribute to work transience and affirmation that organizations are not always built from jobs but from elements of work that need to be done (Bridges, 1994).

How, in a practical sense, should workers deal with all of this change and dislocation? How should they direct their careers, in the near and long term? Take charge. That is the advice given by career experts. It is "You & Co"; we are all self-employed (Bridges, 1994; Hakim, 1994). Our careers are "boundary less" (Arthur & Rousseau, 1996), so opportunities transcend individual employment arrangements (Arthur, Khapova, & Wilderom, 2005).

In this turbulent environment, individuals navigate more career transitions and must be adaptable and competent learners (Hall & Chandler, 2005). However, personal career management and internal changes are more easily proclaimed than accomplished. Enacting a protean career in a shifting landscape of work may not be equally easy for all workers. The merit of such a new career form has been questioned by Scott (2003) who contends that "such a vision seems overly utopian and, at best, would characterize a minority of high-end careers .... Even Proteus needs some tangible social supports!" (p. 334). When faced with turmoil and change, why is it that some workers seem to thrive, whereas others suffer psychological or physical distress? In this article, we explore personal adaptability, one attribute that is important in dealing with change and taking charge of career direction (Heslin, 2005). By better understanding the correlates of adaptability in a turbulent workplace, the hope is to provide better insights for how individuals can develop this metacompetency and how it might be fostered through the structure of work.

Adaptability has been proposed by Hall (2002) as a career metacompetency, which along with personal identity forms the core of a protean career. It is, at its core, the capacity to change, including both the competence and the motivation to do so (Hall & Chandler, 2005).

Although recent work has addressed adaptive behaviors as they relate to particular types of jobs (Pulakos et al., 2000), beyond Hall's (2002) work, this concept has not been extensively developed in the careers literature (Goodman, 1994). Little empirical work has been done to measure and carefully explore its correlates, and there are still gaps in our understanding of the psychological resources that are needed as individuals make adult career transitions (Ebberwein, Krieshok, Ulven, & Prosser, 2004). Recently, Hall (2002) raised the question this way:

> To what extent is adaptability a function of personality or age and state versus a skill and outlook that can be developed?.... From the literature, it appears that the answer is that it is both. There is a need for careful research that would measure a combination of key person variables and key situational variables, however, so that we might quantify the relative contributions of each set of variables to the variance in adaptability motivation and behavior. Although this question always seems to be lurking in the literature, it has not been addressed directly. (p. 231)

The purpose of this article is to address those questions. By building on the work of R.W. Morrison and Hall (2001) and Hall (2002), we propose that three groups of factors such as the characteristics of the individual, the characteristics of the work environment, and the measure of human capital are correlates (and perhaps antecedents) of personal adaptability (see Figure 1). The goal is to understand more clearly the genesis and support of personal adaptability in the workplace. As we unpack personal adaptability and the role of dispositional and situational correlates, we may provide a bit more guidance for those involved in the changing career landscape of the early 21st century.

Individual Adaptability

Adaptability is a personal quality that is important in handling ambiguity, dealing with uncertainty and stress, and in working outside traditional temporal and geographic boundaries (Pearlman & Barney, 2000).

One might argue that adaptability is an innate part of individuals' personalities. Some careers research has followed this approach, seeing adaptability as a relatively inflexible disposition (Metz, 2004). At the same time, specific advice has been offered on how individuals might increase their personal adaptability (Heslin, 2005), assuming that adaptability is malleable. To explore these contrasting views, we propose that adaptability is shaped by a number of factors that are both internal and external to individuals. We argue that some individual factors such as age, race, and gender might influence adaptability insomuch as these attributes may set expectations according to social norms and produce differences in preferences and treatment in the workplace. Furthermore, we propose that the accrual of human capital in terms of occupational status, education, tenure in a work organization, experience working for a contract-based employer, and perceived employability affect one's sense of

adaptability. We also argue that aspects of the work environment may increase or diminish one's self-reported adaptability. In this regard, we follow the lead of stress researchers, focusing on work demand, managerial support, and personal control (Karasek & Theorell, 1990; Van Yperen & Hagedoorn, 2003). Finally, we propose that the receipt of adequate workplace communication may enhance personal adaptability, as suggested by the literature on organizational change and restructuring (Brockner, 1992).

By investigating adaptability from this perspective, we believe that this inquiry will be important to human resources and career practitioners. For instance, if employability, education, and particular kinds of work experience make people more adaptable, then career coaches or perhaps those involved in leadership development might pay attention to the positive value of those experiences. Likewise, if work design and implementation factors such as personal control, managerial support, work demand, and communication are important in fostering adaptability, then there might be clear implications for action.

Individual Characteristics

Age

Is it the buster, boomer, or old guard employee who will be the most adaptable? Those of the Gen X generation, born between 1965 and 1981, differ in notable ways from their predecessors of the Silent Generation, born between 1925 and 1942, and the Baby Boomers, born between 1943 and 1964. Gen Xers tend to distrust hierarchy, like more informal arrangements, and prefer to make judgments based on merit rather than on status. They entered the workforce under a new employment "deal," in which career planning and development are largely individual responsibilities and where the average worker can expect to make several significant changes in employment and/or career direction during their working lives. So it seems likely that those of the X generation will be more adaptable than those in some other age categories.

R. W. Morrison and Hall (2001) report the work of Ayres and Potter (1989), indicating that the motivation to change decreases with age and propose that middle-age individuals should be more adaptable than elderly ones. Also, R. W. Morrison and Hall note that middle-aged and older adults (Reise & Gold, 1993) may have negative attitudes toward developmental experiences that are required to become adaptable because such experiences may be taking place at an unexpected time in their lives, perhaps at a time when such need for adaptation is unexpected.

We offer the following hypothesis regarding age and adaptability:

Hypothesis 1: Age will be negatively related to personal adaptability.

Gender and Race

Race and gender may be related to individuals' personal adaptability. Many studies have shown that, on average, women are more empathic than men, with superior ability to read others' unstated feelings (Goleman, 1995). Perhaps this superior ability to read cues, combined with the

disproportionate amount of relational work performed by women in organizations (Fletcher, 2001), might enhance women's estimation of their own motivation and competence to successfully engage with changing circumstances.

In contrast to this assumption of advantage, gender and race have each been associated with negative outcomes in the workplace, such as harassment and discrimination (Deitch et al., 2003; Segrave, 1994). It is reasonable to expect that these experiences may affect personal resiliency and control in groups that have been harassed or that have suffered from discrimination. Furthermore, certain classes of individuals may lack sufficient resources necessary to acquire human capital. For example, wage and income levels are known to be disproportionately lower for women compared to men and for Blacks compared to Whites (Gottschalk & Danzinger, 2005). Exactly what these circumstances mean for adaptability is unclear: Does adversity or scarcity teach adaptability or squelch it? Lacking specific research support related to adaptability, these two demographic variables are examined on an exploratory basis.

Human Capital

Human capital is the intrinsic value of an employee's knowledge and skill. In a broad sense, human capital consists in two dimensions: (a) value, as represented by contributions that can enhance organizational competency, effectiveness, and or efficiency; and (b) uniqueness, shown as tacit knowledge or expertise. Forret (2006) describes human capital as work experience, education, knowledge, skills, abilities, and training. Human capital represents much of an organization's knowledge and is an important resource in achieving competitive advantage (Hitt & Ireland, 2002).

Although employees possess their own human capital, firms try to protect themselves from the movement of their human capital investments to other organizations (Lepak & Snell, 1999). In other words, employees who possess greater amounts of human capital are likely to be more valued compared to peers with lesser human capital. It is thought that in the current career environment, workers must make decisions about the cost of developing their skills and how to trade off between using current skills and developing new capacities (King, Burke, & Pemberton, 2005). In this study, we explore five career-related dimensions of human capital: perceived employability, occupational status, education, work tenure, and contract-based work experience.

Perceived Employability

Employability is bolstered by networking and by continuously updating job skills (Forret & Sullivan, 2003). Confidence and optimism about one's ability to apply current skills to a variety of settings may help fuel career success. R. W. Morrison and Hall (2001), drawing from Hansson, DeKoekkoek, Neece, and Patterson (1997), note that adaptation is difficult for older workers who feel that their skills are becoming obsolete. When it comes to obsolete skills, the same may be true for workers of all ages. Just as self-confidence can influence goals and effort, confidence in the currency and transferability of one's skills may fuel one's ability to adapt to changing circumstances. Specifically, as an individual's confidence in the marketability of her skills increases, both the competence and confidence to adjust to changing circumstances should likewise be bolstered.

Hypothesis 2: Perceived employability will be positively related to personal adaptability.

Occupational Status

R. W. Morrison and Hall (2001), drawing on the work of Gradman (1994), propose that higher occupational status can lead to greater role flexibility and communication ability. It is this same line of thought that fuels Scott's (2003) critique of protean career theory. He suggests that the protean shape-changing career (which encompasses personal identity and adaptability) might be a reality only for those in "high-end careers" (p. 334). Scott's position is tenable because managerial status is associated with hierarchical power and brings with it increased authority and personal discretion. Successful executives tend to develop personal qualities that make it possible for them to cope with the many ambiguities that fill their days. This includes learning those situations one can control and those one cannot (McCall, Lombardo, & Morrison, 1988).

Professional occupations are identified by six characteristics: expertise, autonomy, commitment to a specialty, identification with a profession, ethical conduct, and standards of practice (Kerr & Von Glinow, 1977). The cosmopolitan framing of professional careers may be related to a sense of agency and personal adaptability. Although holding either managerial or professional status does not guarantee adaptability, the formal power of managers and expert power of professionals may increase their perceived options both within and across organizational borders. Based on this logic, we offer the following:

Hypothesis 3: Those in professional and managerial occupations will be more adaptable than will those in other occupational categories.

Education

Skills must be constantly updated to succeed in the "new deal" for work (King et al., 2005). Formal education is one way to do that. Prior research has shown that formal and experience-based learning affects the adaptability of ministers (Blanchard, 1981) and military recruits (Nelson, 1975). We expect that a similar effect would occur in other occupational categories as well. Increases in education should contribute to the cognitive complexity of individuals, increasing their ability to navigate changing circumstances. This ability in turn may contribute to personal adaptability. For these reasons, we offer the following hypothesis:

Hypothesis 4: Education level will be positively related to personal adaptability.

Tenure

King et al. (2005) note that "most human capital theorists assert that career mobility has a negative impact on career outcomes because workers' wages rise with firm tenure. This is because a longer tenure implies the accumulation of more firm-specific skills, and/or a better match between worker capabilities and job needs" (p. 985). Conversely, the authors claim that "mobility between jobs and projects facilitates regular updating because it increases the range of skills and knowledge acquired" (p. 986).

Adaptive motivation may be specifically related to participation in, commitment to, and success in changing activities (R. W. Morrison & Hall, 2001). Drawing on the work of Ortiz (1978), R. W. Morrison and Hall suggest that individuals may become less flexible as they stay in the same roles over time. Goodman (1994) points to research on midcareer transitions and the possibility that transitions across roles enhance adaptability (Hall, 1986). In contrast to long-term status in continued roles, transition experiences can have positive consequences as "with each new level of routine established comes a heightened level of adaptability, as the person experiences confidence in his or her ability to learn how to learn new career roles" (Hall, 1986, p. 145). Conversely, the lack of such work experience diversity may negatively affect personal adaptability. Specifically, long-term employment at one work site may limit developmental experiences available through exposure to more varying work situations. Based on this logic, we propose the following:

Hypothesis 5: The length of tenure at one work site will be negatively related to personal adaptability.

Contract-Based Work Experience

Experience as an independent contractor or as a subcontractor may create some advantages for learning adaptability. When staffing temporary employment positions, both staffing agencies and client organizations "strive to attract temporaries who display a high degree of social versatility, a willingness to 'blend in' with other organizational communities, and a readiness for continuous learning and change" (Garsten, 1999, p. 615). Arthur, DeFillippi, and Jones (2001) claim that moving across projects facilitates the development and deployment of transferable skills, although some independent contractors are frustrated by the continual travel across employment settings that results in being "perpetual newcomers" (Kunda, Barley, & Evans, 2002, p. 250). In their study of contract workers, Kunda et al. (2002) reported the comments from one interviewee: "You're having to figure out a new culture every time you change jobs" (p. 250).

At the time this research was conducted, a major restructuring was underway. Many employees arriving on the work site as a result of the restructuring had been working for a large firm specialized in contract-based construction projects. The company gained business by bidding on major engineering, construction, and/or demolition projects on a global basis. Employees of this type of organization have a strong incentive to complete work and move on to other contracts and locations. Many in such contract organizations have experienced continual shifts in project focus and geography. On-site interviews showed a strong sense among some workers that those who had recently worked for the global contract company were dealing with change more effectively. Although the employees of this firm were not individual contractors and might stay with that same construction organization for many years, it seems that their practice at adaptability may place them at an advantage, as they continually learn while moving from one project to the next. Recognizing that "practice makes perfect," we propose the following:

Hypothesis 6: Adaptability will be stronger for those with recent contract-based employment than for those who lack such work experience.

Environmental Factors

In addition to individual differences and human capital characteristics, a number of workplace factors may also shape personal adaptability. This line of thought stems from a significant stream of research investigating the impact of work demands, personal control, and social support on physical and psychological reactions to work (Karasek & Theorell, 1990; Van Yperen & Hagedoorn, 2003).

Work Demand

Although it is theoretically possible for a job to be underloaded, the greater risk to workers comes from jobs that are overloaded, leaving few slack resources to deal with change. As work demands rise, workers' coping skills may be stretched, leading to a reduced sense of personal adaptability. For this reason, we offer the following:

Hypothesis 7: Work demands will be negatively related to personal adaptability.

Support

Effective leaders support their followers, providing the tools and resources needed to follow a vision (Kouzes & Posner, 2002). Social support, "overall levels of helpful social interaction available on the job from both co-workers and supervisors," (Karasek & Theorell, 1990, p. 69), may enhance the way in which followers personally adjust and adapt to changing circumstances, facilitating active coping. Just as coping is facilitated, such support may also enhance individuals' personal sense of adaptability, as suggested in the following hypothesis:

Hypothesis 8: Managerial support will be positively related to personal adaptability.

Personal Control

Adaptability may be briefly described as the capacity to respond to challenges with resilience. The notion of responding with resilience implies agency, the ability to make an impact and to act as an agent in effecting control over one's work environment and work outcomes. Wall, Jackson, Mullarky, and Parker (1996) summarize the role of such control in job strain research this way: "Increased control reduces the effects of stressors by allowing individuals to face demands when they are best able to do so and in ways they find most acceptable" (p. 155). As individuals shape the timing and methods used to face demands, they may also grow in their personal sense of adaptability. Therefore, we offer the following hypothesis:

Hypothesis 9: Perception of personal control will be positively related to adaptability.

Communication

R. W. Morrison and Hall (2001) propose that organization policies and practices may act as either inhibitors or enhancers of the adaptation process. For instance, as noted by Erlich and Lee (1969), skilled leaders can assist with the adaptation process by their use of different communication techniques.

For those who are seeking to foster change within organizations, there are clear indications that communication plays a crucial role. Kotter (1996) put it this way: "All successful cases of major change seem to include tens of thousands of communications that help employees to grapple with difficult intellectual and emotional issues" (p. 94). When employees feel that they are well-informed on key workplace issues, they may also have a great sense of competence and skill in navigating current and future changes. With this in mind, we offer the following:

Hypothesis 10: The level of organizational communication received by an individual will be positively related to personal adaptability.

Method Sample

This research was conducted in a setting in which a small number of major employers had shaped the work expectations of multiple generations. The locations for this study were some of the nuclear production and maintenance facilities of the U.S. government. They present a microcosm, if not a crucible, of change in the modem workplace. As the nuclear needs of the country have changed since the cold war era, there has also been a move to privatize local economies, some of which were virtually built around government-sponsored installations. These settings can foster the collision of new and old work models, varying career expectations and great uncertainty about ongoing skill relevance and employability. In that context, some workers have strong and long-term ties to particular regions and employers, where continued work at that location is a key issue in their lives. Family ties, friendship networks, and personal histories provided strong ties to stable long-term employment.

Sample

A combination of on-site administrations and mail surveys yielded a total of 604 usable surveys, for a 52% response rate. Seventy percent of the respondents were male. Eighty-seven percent were Caucasian, and 9% were African American. Eighteen percent of the respondents were under age 40, 40% were age 40 to 49, and 39% were 50 years of age or older. Thirty-eight percent of the respondents had a high school diploma or equivalent, 34% held college degrees, and 28% held postgraduate degrees. Overall, the sample mirrored the population quite well in terms of age, gender, and ethnicity. Respondents were slightly above the population averages for education and salary level.

Measurement

Age

Age was initially measured as an ordinal variable with response categories including less than 30, 30-39, 40-49, 50-55, and 55+. To better approximate a continuous measure of age, the values were entered as follows: less than 30 became 20; 30-39 became 34.5; 40-49 became 44.5; 50-55 became 52.5; 55+ became 60.

Education

Education level was measured as an ordinal variable with the following response categories: less than a high school diploma, high school graduate or equivalency diploma, college degree, graduate school training, and postgraduate degree. To better approximate a continuous measure of education, the values were entered as approximate years of education as follows: less than a high school diploma became 10; high school graduate or equivalency diploma became 12; college degree became 16; graduate school training became 17, and postgraduate degree became 19.

Tenure on Work Site

Respondents indicated the number of years of service at their current work site. The five response categories were less than a year, between I and 5 years, between 5 and 10 years, between 10 and 20 years, and greater than 20 years.

Work Demand

Work demand was based on five items from the Job Content Questionnaire (Karasek et al., 1985), which is a widely used and validated instrument for the measure of job strain. The questionnaire has been translated into multiple languages and used in numerous national and international studies. The specific items of the work demand subscale were as follows: "I am not asked to do an excessive amount of work"; "I have enough time to get the job done"; "My tasks are often interrupted before they can be completed, requiring attention at a later time"; and "My job is very hectic." Respondents selected one of four categories, ranging from strongly agree to strongly disagree. The scale showed a Cronbach's alpha of .81.

Support

The measurement of manager support included five items: "My immediate/direct manager cares about people who work for him/her"; "My immediate/direct manager pays attention to what I have to say"; "I am exposed to hostility from my direct manager"; "My direct manager is helpful in getting the job done"; and "My direct manager is helpful in getting people to work together." The supervisory support items were based on the five items from the Job Content Questionnaire (Karasek et al., 1985), measuring supervisory concern, supervisory attention, supervisory hostility, supervisory helpfulness, and supervisory organization.

Respondents selected one of four categories, ranging from strongly agree to strongly disagree. The alpha reliability was .91.

Personal Control

Personal control was measured with three items based on Karasek (1979), including "My job allows me to make a lot of decisions on my own," "I have very little freedom to decide how I do my work," and "I have a lot of say about what happens on my job." The scale reliability was .81.

Communication

This short scale was informed by Brockner's (1992) work that described the importance of communication for employees in circumstances of organizational change and transition. He identified particular types of communication as important for coping. We created a short scale to evaluate the adequacy of organizational information as a lever for adaptability. In addition, two of those items are conceptually related to the "corporate information" dimension of the Communication Satisfaction Questionnaire (Downs & Hazen, 1977), which asks about notification regarding changes and information about the overall policies and goals of the organization. It also asks in the Supervisory Communication Scale about the extent to which respondents feel they get guidance in solving work-related problems. The organizational integration dimension explores satisfaction with information about job requirements and about departmental plans.

Although the communication scale we used in our study did not have a direct ancestor in the literature, dimensions tapped have been seen as important by other researchers. In a principal components factor analysis with varimax rotation of all the items for five scales in the study (managerial support, communication, employability, adaptability, and job demands), the communication items loaded on a separate factor, with loadings ranging from .65 to .80. The communication scale showed a standardized alpha score of .84.

Recent Contractor-Based Employer Experience

This was measured by asking respondents if they were employed by the major global construction and engineering firm that had recently created a new organization to take a leadership role at the key work site. Although it is possible that some of the other respondents also worked for employers who did contract work, it had been specifically suggested in field interviews that employees of this particular global construction firm, based in project work, might be better able to adapt to and navigate change.

Professional Status

Respondents indicated which of the following descriptions best fit their current jobs: office/clerical/ administrative; craft worker; technician; laborer; service worker; professional; officials and managers; or other. The professional and officials and managers categories were combined, creating two categories: professional/managerial and others.

Employability

Given our inquiry within a set of organizations undergoing significant change, we also wanted to tap into respondents' notions about advancement and work responsibilities; the prospects for employment continuation seemed to be of particular importance. A measure for employability was based on the idea of job insecurity and adopted from the National Institute of Occupational Safety and Health Generic Job Stress Questionnaire (Hurrell & McLaney, 1988). The scale tapped into respondents' certainty about their future career picture, using the following items: "How certain are you about what your career picture looks like?.... How certain are you of opportunities which exist for promotion and advancement in the next few years?.... How certain are you about whether your job skills will be of use and value 5 years from now?.... How certain are you about what your work responsibilities will be

6 months from now?" and "If you lost your job how certain are you that you could support yourself?" There were five response categories, ranging from somewhat uncertain to very certain. In factor analysis, these items loaded on a single factor when entered with all the items comprising the managerial support, communication, adaptability, and job demands scales. The employability scale showed a standardized alpha of .76.

Adaptability

The Adaptability Scale was based on items developed by R. F. Morrison (1996). Some of the items in the scale include the following: "I find it hard to adjust to doing new tasks in my job.... It is hard for me to adapt to new people joining my team" and "I find it very discouraging when the work that I do in my job changes" Factor analysis (principal components analysis with varimax rotation) showed that these seven items loaded independently of other key constructs in the study. The seven-item scale had a Cronbach's alpha of .83.

Results

Individual Differences

When tested by simple correlation analysis, neither age, gender, nor race is significantly related to personal adaptability. When the three variables are entered as a single block in hierarchical regression, gender is significantly related to adaptability ($p = .01$), with women being significantly more adaptable than men ($p = .05$). This shows no support for Hypothesis 1 and indicates that there is a significant relationship between gender and adaptability.

Human Capital Factors

When tested through simple correlation analysis, all of the human capital factors are related to adaptability: employability, occupational status, education, and experience with a global contractor firm are all positively related, whereas length of tenure in the single work site is related negatively (see Table 1). When entered as a block in regression analysis, the human capital factors account for a significant amount of variance in adaptability ([R.sup.2] = .164; change in $F = 18.6$; $p < .01$). When individual differences are accounted for, as well as environmental factors, two variables continue to be significantly related to adaptability: employability ($p < .01$) and education ($p < .05$). In sum, there is strong support for Hypotheses 2 and 4. Hypotheses 3, 5, and 6 are not supported.

Work Environment Factors

When analyzed with simple correlation, managerial support, personal control, and communication are all positively related to adaptability, whereas work demand is not significantly related. When the individual and human capital factors are all accounted for, as shown in regression Model 3 in Table 2, one environmental factor remains significant: management support (beta = .27; $p < .01$). In sum, there is no support for Hypothesis 7, strong support for Hypothesis 8, and no support for Hypotheses 9 and 10.

Discussion

As examined in this study, human capital factors (employability, occupational status, education, tenure, and global contractor experience) accounted for the greatest amount of variance in personal adaptability. When the full model is examined, education and employability are the human capital factors with the strongest relationship to adaptability. Although work environment factors, as a group, account for the next largest amount of variance in adaptability, management support is the only significant individual factor. When the human capital and environmental factors are accounted for, gender is strongly related to adaptability: Females are more adaptable.

Implications on the Individual Level

Contrary to our prediction, age was not related to personal adaptability. This should give us pause if we tend to broadly stereotype entire generations as more or less willing to adapt to workplace changes.

Perhaps it should be no surprise to discover that, when other factors are accounted for, women are significantly more adaptable than men. Although circumstances have changed to some degree during the past 20 years, it is women who have borne the brunt of juggling work and nonwork priorities. As noted earlier in the article, it may well be that adaptability may be related in some way to the findings that women generally are more empathetic than men (Goleman, 1995) and have often done a great deal of the relational work that is important to organizations' function (Fletcher, 2001).

Human Capital Factors

When examining a set of five human capital factors, only two--perceived employability (Hypothesis 2) and education (Hypothesis 4)--were positively related to personal adaptability.

The strong relationship of education and adaptability may imply at least two different things. First, we may consider that certain aspects of the protean career, in which adaptability and identity are key (Hall, 2002), may not be as easily accessible to workers with lower levels of education. Perhaps the notion of adaptability is, to some degree, an elitist concept. Alternatively, we may see the possibility of adaptability itself being teachable. What specifically is there about advanced education that brings about a higher sense of personal adaptability? If it is accumulated cognitive complexity accrued through many years of learning, that certainly cannot be imparted quickly. However, if there are certain ways of framing one's experience or interpreting the world that are key to adaptability, these may provide avenues for training and coaching workers with lower education levels.

Those with a stronger sense of personal employability appear to be more adaptable than others. Although all individuals in a shifting workplace may experience stress, those who feel that their skills give them options for other employment see themselves as better prepared and ready to make changes. Those who are unsure about their skill currency, and hence employability, may feel less adaptable due to their limited marketability. In the environment where this study was conducted, some types of work had become very site specific, leaving employees with the feeling that their ability

to adapt and change was limited by the employment market. This only reinforces the notion that skill currency and marketability are important in developing flexible careers.

Implications on the Environmental Level

Once other factors had been accounted for, only managerial support was related to personal adaptability. This has implications both for job design and managerial practice. It could be that managerial support may fuel individuals' ability to adapt to changing circumstances, perhaps even beyond the immediate jobs in which they find themselves. It is interesting to find that the level of work demands was not directly related to personal adaptability. So it would seem that the level of job demands in itself does not drive one's ability to adapt. The resources for doing so in terms of the immediate work environment may flow from a supportive manager, even if the job is one with a great deal of pressure.

Conclusion

Hall and Chandler (2005) state, "The person with high adaptability would have the capacity to engage proactively in the process of goal-setting, initiating effort, and achieving psychological success" (pp. 163-164). They also note, "In a world characterized by frequent career transitions for the individual and by careers as mini-stages (shorter learning cycles) (Hall, 1993; 2002), individuals are thrown into more unfamiliar situations and are expected to be resilient and successful. Only those who are capable of responding to these types of circumstances can thrive in today's protean career context" (p. 164).

If indeed personal adaptability is so central to career success, perhaps both individual workers and workplace managers have a role to play. Based on this study, the value of personal learning is clear. This should offer further encouragement to pursue both formal and informal educational opportunities on an ongoing basis. The finding that managerial support is related to personal adaptability raises the stakes for managers. By offering appropriate support to workers, it seems that managers may bolster individuals' motivation and sense of competence in dealing with change.

Limitations and Future Research

Although this study did use a large and diverse set of respondents, it is cross-sectional. This means that we cannot be certain about the direction of the relationships. For instance, we sense that education is a precursor of enhanced adaptability. However, could it be that the relationship flows in the opposite direction? Perhaps those with higher levels of personal adaptability pursue more educational opportunities. This line of reasoning might also apply to perceived employability. Perhaps it is a sense of adaptability that drives individuals' sense of marketability. The findings regarding managerial support seem less equivocal: It is difficult to imagine how individual adaptability would drive managerial support. The questions about directionality of relationships could be addressed through longitudinal designs in future studies. By repeatedly measuring personal adaptability and its perceived antecedents over time, the direction of statistical relationships could be clarified.

One might argue that the findings are not applicable in all work settings due to the specific work environments where the study occurred. The significant restructuring and uncertainty about future

employment were central issues as we interviewed and surveyed workers. However, one may also argue that significant findings discovered in the midst of very high levels of uncertainty and stress might be especially interesting. Any factors that seemed to enhance adaptability in the midst of such stress may show positive impacts in a wide range of less intense work situations.

There might also be opportunities for measuring some of the human capital factors in even more fine-grained ways. In particular, our simple measure of recent work for a global construction contractor might be refined to explore the amount of transience or project-focused tasks embedded in the work of many individuals. Many employers and many jobs deal with continually changing projects for a variety of clients, internal and external to firms. Capturing that dimension more richly might help us better understand how adaptability could be fostered as a part of work experience.

Our model is simple and direct. Future research may specifically examine the interaction of multiple variables that might affect personal adaptability. For instance, if gender were examined as a primary independent variable, one might explore interactions with a variety of other human capital and work environment factors.

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Table 1
Correlations and Descriptive Statistics

	M	SD	1	2	3	4	5	6
1. Age in years (a)	46.16	8.90						
2. Caucasian/other (b)	1.13	0.34	.15 **					
3. Gender (c)	1.30	0.46	-.23 **	-.05				
4. Skill security	2.11	0.76	-.06	.00				
5. Occupation status (d)	1.57	0.50	-.11 **	-.06				
6. Education	15.00	2.57	-.11 **	-.02				
7. Tenure	12.04	8.47	.31 **	.16 **				
8. Contractor experience	0.08	0.27	.02	.02				
9. Work demand	2.67	0.61	-.14 **	-.03				
10. Managerial support	3.00	0.52	-.07	-.02				
11. Personal control	2.94	0.64	-.02	-.02				
12. Communication	3.02	0.66	.04	.11 *				
13. Adaptability	3.18	0.47	-.04	.07				

1. Age in years (a)									
2. Caucasian/other (b)									
3. Gender (c)									
4. Skill security	.03								
5. Occupation status (d)	-.16	**	.20	**					
6. Education	-.09	*	.19	**	.56	**			
7. Tenure	-.14	**	-.18	**	-.18	**	-.19	**	
8. Contractor experience	-.02		.19	**	.19	**	.15	**	
9. Work demand	.13	**	-.09	*	.16	**	.11	**	
10. Managerial support	.03		.33	**	.21	**	.11	**	
11. Personal control	.02		.39	**	.28	**	.16	**	
12. Communication	.06		.43	**	.06		.03		
13. Adaptability	.08		.34	**	.19	**	.19	**	

	7	8	9	10
1. Age in years (a)				
2. Caucasian/other (b)				
3. Gender (c)				
4. Skill security				
5. Occupation status (d)				
6. Education				
7. Tenure				
8. Contractor experience	-.25 **			
9. Work demand	-.01	-.04		
10. Managerial support	-.11 **	.14 **	.03	
11. Personal control	-.17 **	.17 **	-.09 *	.64 **
12. Communication	-.08	.12 **	-.28 **	.43 **
13. Adaptability	-.13 **	.15 **	-.06	.39 **

	11	12
1. Age in years (a)		
2. Caucasian/other (b)		
3. Gender (c)		
4. Skill security		
5. Occupation status (d)		
6. Education		
7. Tenure		
8. Contractor experience		
9. Work demand		
10. Managerial support		
11. Personal control		
12. Communication	.50 **	
13. Adaptability	.34 **	.30 **

(a.) Categorical responses, with range from "less than 20" to "55+." The approximate midpoint of category used in computation.

(b.) Caucasian = 1; all other ethnic groups = 2.

(c.) Male = 1; female = 2.

(d.) Professionals/managers = 1; others = 2

* p < .05. ** p < .01.

Table 2
Results of Hierarchical Linear Regression Analysis, With Variable Groupings Entered as Blocks

Individual Differences	Model 1	Model 2	Model 3
Age	-.02	.02	.03
Ethnic group	.07	.08 *	.07
Gender	.08	.11 **	.11 **
Human capital factors			
Employability		.29 **	.16 **
Occupational status		.09	.06
Education		.11 *	.12 *
Years of service		-.04	-.03
Contractor experience		.05	.03
Work environment			
Job demands			-.06
Management support			.27 **
Control			.00
Communication			.08
[R.sup.2]	.01	.16	.25
Adjusted [R.sup.2]	.01	.15	.23
Change in [R.sup.2]		.153 ***	.084 ***

* p < .05. ** p < .01. *** p < .001.